



(19)

(11) Publication number: **11319485 A**

Generated Document.

PATENT ABSTRACTS OF JAPAN

(21) Application number: **10323145**

(51) Intl. Cl.: **B01D 53/70** B01D 53/34 B01D 53/68 B01D 53/86

(22) Application date: **13.11.98**

<p>(30) Priority: 14.11.97 JP 09313089</p> <p>(43) Date of application publication: 24.11.99</p> <p>(84) Designated contracting states:</p>	<p>(71) Applicant: HITACHI LTD HITACHI ENG CO LTD HITACHI KYOWA ENGINEERING CO LTD</p> <p>(72) Inventor: IRIE KAZUYOSHI MORI TOSHIHIRO YOKOYAMA HISAO TOMIYAMA TAKAYUKI TAKANO TOSHIHIDE TAMADA SHIN SUGANO SHUICHI</p> <p>(74) Representative:</p>
---	---

(54) TREATMENT OF PERFLUORIDE AND TREATING DEVICE THEREFOR

(57) Abstract:

PROBLEM TO BE SOLVED: To prevent the clogging of a catalyst bed to improve the decomposition reaction of a perfluoride.

SOLUTION: A waste gas containing a perfluoride (PFC) and SiF_4 and discharged from a semiconductor producing device is introduced into a pre-spray 11 and brought into contact with water to convert Si to SiO_2 to remove. The waste gas discharged from the pre-spray 11 is mixed with a reaction water and heated to 700°C by a heater 12. After that, the gas containing PFC is introduced into the catalyst bed 14 filled with an alumina based catalyst. The PFC is decomposed by the catalyst into HF and CO_2 . The high temp. waste gas discharged from the catalyst bed 14 and containing CO_2 and HF is cooled in a cooling device and introduced into a removing device 17 to remove HF. Because Si in the waste gas is removed, the clogging of the catalyst bed caused by SiO_2 generated by the reaction of SiF_4 with the reaction water is prevented.

COPYRIGHT: (C)1999,JPO

